

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus for allocating an El channel between ~~an MSC~~ ~~(mobile switching center)~~ a mobile switching center ("MSC") and an ~~IWF (interworking function)~~ interworking function ("IWF") unit in code division multiple access (~~CDMA~~) ("CDMA") mobile communication system, the apparatus comprising:

a channel buffer for receiving and storing call processing data;

a transmission ~~SI RAM (serial interface routing RAM)~~ routing serial interface random access memory ("SI RAM") for storing El channel allocation information, wherein the El channel allocation information includes information on whether a transmission super channel ~~including~~ made up of 5 channels will be employed or a transmission super channel ~~including~~ made up of 10 channels will be employed in transmitting the call processing data to the IWF unit;

a reception SI RAM for storing the El channel allocation information, wherein the El channel allocation information further includes information on whether a reception super channel ~~including~~ made up of 5 channels will be employed or a reception super channel ~~including~~ made up of 10 channels will be employed in receiving the call processing data transmitted from the IWF unit;

a ~~CPM (communication processor module)~~ communication processor module ("CPM") for reading ~~out~~ the call processing data that ~~are~~ is stored in the channel buffer, storing received call processing data in the channel buffer, determining ~~which ones of~~ whether there are more high speed ~~high speed calls and low speed calls are more included~~ calls or low speed calls in a plurality of call types ~~in process currently~~ currently being

processed and modifying the EI channel allocation information stored in each of the transmission SI RAM and the reception SI RAM;

a multi channel controlling unit for reading ~~out~~ the EI channel allocation information stored in each of the transmission routing SI RAM and the reception routing SI RAM and allocating a super channel ~~for low speed including 5 channels~~ made up of 5 channels for low speed calls or a super channel ~~for high speed including 10 channels~~ made up of 10 channels for high speed calls to the EI channel; and

a serial-parallel converting unit for converting the call processing data from the CPM to serial data, transmitting the serial data to the IWF unit through a corresponding super channel and converting the call processing data from the IWF unit through the corresponding super channel to parallel data and then transmitting the parallel data to the CPM.

2. (Currently Amended) The apparatus as recited in claim 1, wherein the transmission SI RAM includes:

a first super channel storage space for low speed ~~for storing~~ calls operable to store the EI channel allocation information about the transmission super channel ~~including~~ made up of 5 channels; and

a first super channel storage space for high speed ~~for storing~~ calls operable to store the EI channel allocation information about the transmission super channel ~~including~~ made up of 10 channels.

3. (Currently Amended) The apparatus as recited in claim 1, wherein the reception SI RAM includes:

a second super channel storage space for low speed ~~for storing~~ calls operable to store the EI channel allocation information about the reception super channel including made up of 5 channels; and

a second super channel storage space for high speed ~~for storing~~ calls operable to store the EI channel allocation information about the reception super channel including made up of 10 channels.

4. (Currently Amended) A method for allocating an EI channel between an ~~an~~ MSC (mobile switching center) a mobile switching center ("MSC") and an ~~IWF (interworking function)~~ interworking function ("IWF") unit in a code division multiple access ~~(CDMA)~~ ("CDMA") mobile communication system, the method comprising the steps of:

a) by a ~~CPM (communication processor module)~~, communication processor module ("CPM"), receiving from the high-level processor call type information about a plurality of call types in process currently being processed from the high-level processor;

b) by the CPM, determining, ~~which are more included~~ based on the call type information, whether there are more high speed calls or low speed calls in the plurality of call types in process currently, high speed calls or low speed calls based on the call type information currently being processed;

c) ~~if the high speed calls are more included in the plurality of call types in process currently, by the CPM, designating~~ if there are more high speed calls in the plurality of call types currently being processed, then the CPM designates first/second super channel storage space for high speed calls of each transmission/reception routing SI-RAM (serial interface routing random access memory RAM) ("SI RAM") as an active

zone and first/second super channel storage space for low speed calls of each transmission/reception routing SI RAM as a shadow zone; and

d) by a multi channel controlling unit, reading ~~out~~ the EI channel allocation information that is stored in each of the first/second super channel storage spaces for high speed calls and allocating a super channel ~~including~~ made up of 10 channels for high speed calls to the EI channel.

5. (Currently Amended) The method as recited in claim 4, wherein ~~the~~ step c) further includes the steps of:

e) ~~if the low speed calls are more included in the plurality of call types in process currently, by the CPM, designating~~ if there are more low speed calls in the plurality of call types currently being processed, then the CPM designates first/second super channel storage space for low speed calls of each transmission/reception routing SI RAM as the active zone and first/second super channel storage space for high speed calls of each transmission/reception routing SI RAM as the shadow zone; and

f) ~~by the multi channel controlling unit, reading out the multi channel controlling unit reading~~ the EI channel allocation information that is stored in each of the first/second super channel storage spaces for low speed calls and allocating a super channel ~~including~~ made up of 5 channels for low speed calls to the EI channel.